

## ABSTRACT OF THE DISCLOSURE

A head positioning system includes: a positioning mechanism section **1** for positioning a head **12**; a position controller **2** for detecting a head position signal  $x$  to output a position control signal  $U_x$ ; a velocity detector **3** for detecting the relative velocity of the head **12** with respect to a disk **7** based on the head position signal  $x$ ; a counter electromotive voltage detector **4** for outputting an estimated head velocity signal  $V_{e2}$  that is obtained by estimating the absolute velocity of the head **12** based on a counter electromotive voltage signal  $V_s$  of an actuator **50**; an estimated velocity corrector **5** for correcting an estimation error of the estimated head velocity signal  $V_{e2}$  based on a velocity signal detected from the head position signal  $x$  so as to output a corrected estimated velocity signal  $V_{e2}'$ ; and an estimation controller **6** for outputting a velocity control signal  $U_v$  based on the corrected estimated velocity signal  $V_{e2}'$ , wherein the actuator **50** is controlled by a control amount signal  $U$  that is obtained by adding at least the velocity control signal  $U_v$  to the position control signal  $U_x$ .